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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,795	04/09/2004	Scot H. Rider	POU920040005US1	2830

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HESLIN ROTHENBERG FARLEY & MESITI P.C.
5 COLUMBIA CIRCLE
ALBANY, NY 12203

EXAMINER	
KANGARLOO, RAMTIN	
ART UNIT	**PAPER NUMBER**
2609	
MAIL DATE	**DELIVERY MODE**
08/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/822,795	SCOT RIDER	
	Examiner	Art Unit	
	Ramtin Kangarloo	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,8,10,17,19,22-24 and 31* is/are rejected.

7)☒ Claim(s) *2-7,9,11-16,18,20,21,25-30 and 32* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/09/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In *re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims1, 10 and 24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 13-17 and 29-33 of copending (U.S. patent Application No. 10822794) Although the conflicting claims are not identical, they are not patentably distinct from each other because both the claims of instant application and the claims of parent application No. 10822794 are almost the same in scope. Claim 1 of instant application corresponds to clams 1 – 5 of

the copending application; claim 10 of instant application corresponds to clams 13 - 17 of the copending application and claim 24 of instant application corresponds to clams 29 - 33 of the copending application. It would have been obvious to one of ordinary skill in the art at the time of invention to combine all limitation of those corresponding as describe above to come up with a same result.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 10 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hahne (5,014265).

Regarding **Claim 1**, Hane discloses a packet flow control method for a switching node (fig.1) of a data transfer network, said method comprising: actively managing space allocations in a central queue (fig.2) for a plurality of ports of a switching node of a data transfer network, wherein the actively managing is based on an amount of

currently unused space in the central queue (data source); and wherein the actively managing includes determining, based on an amount of currently-vacant storage space in a storage device of a port (each node) of the plurality of ports, whether the port accepts an offered space for use by the port to buffer received data packets, the offered space comprising a quantity of the amount of currently unused space in the central queue (see abstract).

Regarding **Claim 10,** Hane discloses a packet flow control system for a switching node (fig.1) of a data transfer network, said system comprising: means for actively managing space allocations in a central queue (fig.2) for a plurality of ports of a switching node of a data transfer network, wherein the actively managing is based on an amount of currently unused space in the central queue (data source); and wherein the means for actively managing includes means for determining, based on an amount of currently-vacant storage space in a storage device of a port (each node) of the plurality of ports, whether the port accepts an offered space for use by the port to buffer received data packets, the offered space comprising a quantity of the amount of currently unused space in the central queue(see abstract).

Regarding **Claim 24,** Hane discloses at least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a packet flow control method for a switching node (fig.1) of a data transfer network, said method comprising: actively managing space allocations in a central queue (data source) for a plurality of ports of a switching node of a data transfer network, wherein the actively managing is based on an amount

of currently unused space in the central queue(fig.2); and wherein the actively managing includes determining, based on an amount of currently-vacant storage space in a storage device of a port(each node) of the plurality of ports, whether the port accepts an offered space for use by the port to buffer received data packets, the offered space comprising a quantity of the amount of currently unused space in the central queue(see abstract).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 8, 17 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable by Hahne (5,014265).

Regarding **Claim 8**, Hahne disclose the method of claim 1, wherein said actively managing further comprises: returning the offered space back to the central queue as returned space and adding the returned space to the amount of currently unused space in the central queue. (See col.4, lines 21-23 and col.8 lines 30-33).

Hahne does not specifically disclose the method wherein returning the offered space if said determining results in a refusal of the offered space.

With a common sense, if an offer space from a central queue is refused, it will be return the refused offer space back to the to the central queue.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention, to add the returned space to unused space in the central queue for the future memory allocation.

Regarding **Claim 17,** Hahne disclose the system of claim 10, wherein said means for actively managing further comprises: means for returning the offered space back to the central queue as returned space and means for adding the returned space to the amount of currently unused space in the central queue (see col.4, lines 21-23 and col.8 lines 30-33). Hahne does not specifically disclose to return space if said determining results in a refusal of the offered space. With a common sense, if an offer space from a central queue is refused, it will be return the refused offer space back to the to the central queue.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention, to add the returned space to unused space in the central queue for the future memory allocation.

Regarding **Claim 31,** Hahne disclose the at least one program storage device of claim 24, wherein said actively managing further comprises: returning the offered space back to the central queue as returned space and adding the returned space to the amount of currently unused space in the central queue. (See col.4, lines 21-23 and col.8 lines 30-33). Hahne does not specifically disclose to return space if said determining results in a refusal of the offered space. With a common sense, if an offer space from a central queue is refused, it will be return the refused offer space back to the to the central queue.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention, to add the returned space to unused space in the central queue for the future memory allocation.

7. Claims 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable by Valizadeh (5,838,994).

Regarding **Claim 19,** Valizadeh disclose a queue manager for a switching node of a data transfer network, said queue manager comprising: central queue control logic (queuing engine) for a switching node for tracking an amount of currently unused space

(fig.6) in a central queue of the switching node and offering a quantity of the unused space to a plurality of ports of the switching node; the offered space comprising the quantity of the unused space in the central queue offered by said central queue control logic and, if the offered space is accepted, allocating the offered space to at least one virtual lane of the port (see col.4, lines 27-35) . Valizadeh does not specifically disclose to use a port credit manager for determining, based on an amount of space in a port, whether the port accepts an offered space for use by the port to buffer received data packets. However, based on common knowledge of the person skilled in the art, in order to manage the process, available space in the port is required.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention, to manage a queue based on an amount of available space in the port.

Regarding **Claim 22,** Valizadeh disclose the queue manager of claim 19, wherein: the port credit manager returns the offered space back to the central queue as returned space; and the central queue control logic adds the returned space to the amount of currently unused space in the central queue (see col.6, lines 51-54). Valizadeh does not specifically disclose to returns the offered space if the determining results in a refusal of the offered space. With a common sense, if an offer space from a central queue is refused, it will be return the refused offer space back to the to the central queue.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention, to add the returned space to unused space in the central queue for the future memory allocation.

8. Claim23 is rejected under 35 U.S.C. 103(a) as being unpatentable by McClure (5,867,663) in view of Valizadeh (5,838994)

Regarding **Claim 23**, McClure disclose a switching node for a data transfer network, said switching node comprising: a plurality of data ports; (fig 2) a central queue for buffering data packets received by said plurality of data ports (see col. 5 lines 64 – 49 and col.6 lines 1-3), McClue does not specifically disclose a packet flow controller wherein said packet flow controller actively manages space allocations in said central queue for said plurality of ports based on an amount of currently unused space available in said central queue and an amount of currently-vacant storage space in a storage device of a port. However, Valizadeh teach a packet flow controller wherein said packet flow controller actively manages space allocations(fig 2) in said central queue for said plurality of ports based on an amount of currently unused space available in said central queue and an amount of currently vacant storage space in a storage device of a port. (See col.1, lines 53-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the packet flow controller of McClure to include actively managing space allocation in the central queue as taught by Valizadeh in order to handle, at the

switching node, the amount of currently unused space available in the central queue associated with the storage device of a port.

Allowable Subject Matter

9. Claims 2 –7, 9, 11-16, 18, 20-21, 25-30 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. Any response to this Office Action should be **faxed** to (571) 273-8300 **or Mailed to :**

Commissioner for Patents,
P.O.Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramtin Kangarloo whose telephone number is (571) 270-3452. The examiner can normally be reached on Monday to Thursday 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571) 272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ramtin Kangarloo
Examiner Art Unit 2616
July 11,2007

BENNY Q. TIEU
SPE/TRAINER